

***Remarks***

Upon entry of the foregoing amendment, claims 1-5, 8-18, 20-23, and 25-30 are pending in the application, with claims 1, 9, 14, 20, 21, 26, 29, and 30 being the independent claims. By the foregoing amendment, claims 1, 14, 20, and 29 are sought to be amended, and claim 7 is sought to be cancelled. These changes are believed to introduce no new matter, and their entry is respectfully requested. Based on the above amendment and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

***Rejection Under 35 U.S.C. § 112:***

Claim 20 was rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. Specifically, the rejection alleges that the recitation of "a gain of said programmable gain stage is tunable in logarithmic steps" is not disclosed in the specification.

The Examiner is directed paragraph [0062] on page 16 of the original specification, which describes a programmable gain stage with logarithmic tuning. Specifically, this paragraph describes a programmable gain stage where the "resistors 906 provide for logarithmic steps in attention, as opposed to the linear relationship...". Based on the disclosure of paragraph [0062], Applicants assert that claim 20 is sufficiently supported for purposes of 35 U.S.C. § 112, first paragraph. Accordingly, Applicants request that the rejection under 35 U.S.C. § 112, first paragraph, be reconsidered and removed.

***Rejections under 35 U.S.C. § 103***

Claims 1, 2, 22, and 23 stand rejected under 35 U.S.C. § 103(a) as being anticipated by US patent 4,246,582 to Kondo. Claim 3 stands rejected under 35 U.S.C. 103(a) under Kondo in view of U.S. Patent No. 4,527,014 Styra *et al* further in view of U.S. Patent No. 5,367,540 to Kakuishi. Claim 4 stands rejected under 35 U.S.C. 103(a) under Kondo in view of Styra in view of Kakuishi and further in view of U.S. Patent No. 6,720,829 to Matsuyoshi *et al.* Claim 5 stands rejected under 35 U.S.C. 103(a) under Kondo in view of Styra in view of Kakuishi and further in view of U.S. Patent No. 5,379,338 to Umemoto *et al.* Claim 13 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo in view of Styra further in view of U.S. Patent No. 5,231,408 to Nakase. Claim 18 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo in view of Styra and further in view of Japanese Pub. No. 05-121907 to Sawada *et al.* Claim 14 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo in view of U.S. Publication No. 2004/0247132 to Klayman *et al.* Claim 15 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo in view of Klayman in view of U.S. Pub. No. 2004/0160272 to Behzard. Claims 16 and 17 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo in view of Styra. Claim 20 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo in view of U.S. Patent No. 6,744,831 to Chan and further in view of Klayman.

Claims 9-12, 21, 21, 25-28, and 30 were allowed. It is noted that claims 7-8 were not addressed in the office action and therefore are assumed to be allowable since they were indicated to be allowable in the previous office action dated October 5, 2004.

Claim 1 was amended to include the feature of *wherein said series resistance is greater than a characteristic impedance of said transmission medium*, which was

previously recited in canceled claim 7. Kondo does not teach this feature nor does the Office Action allege so. (As discussed above, it is noted that claims 7-8 were not addressed in the Office Action, and therefore are assumed to be allowable, considering these claims were indicated allowable in the Office Action dated 10/5/2004.) Further, upon review, it is noted that the other cited art also does not teach the mentioned feature. Accordingly, claim 1 and its respective dependent claims 2-5, 8, 13, 16-18, 22-23, are also allowable over the cited art.

Claims 14, 20, and 29 were similarly amended to that claim 1. Accordingly, these claims and their respective dependent claims are also allowable over the cited art for the reasons mentioned above.

Based on the above amendments and discussion, Applicants request that the rejection of claims 1-5, 8, 13, 14-18, 20, 22, 23, and 29 under 35 U.S.C. § 103(a) be reconsidered and withdrawn. Accordingly, Applicants assert that claims 1-5, 8-18, 20-23, and 25-30 should now be passed to allowance.

### ***Conclusion***

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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